These problems are for your study; they will not be collected. Solutions will be posted.

The second exam will be on Monday, November 17. A description of the coverage on the exam, and a set of review problems, has been posted on the web page. We will have a review/problem session on **Friday, November 14, 1:40–3:00 PM, in SEC 210.**

Section 17.7: 1 (a), (b), (c), (d), (e), (f)

Comments, hints, instructions:

17.7.1:

- In (a,b,c) you should recognize by inspection that the problem will lead to one of the series studied in Section 17.4. There is no need to do any more.

- In (d) and (e) you will not be able to find the eigenvalues explicitly; give a graphical interpretation as was done in class or in Figure 3. The two problems are similar but it may be worth your time to look at both.

- Part (f) is again like one of the series from 17.4, but here because the interval is $[-1, 1]$ the form of the solutions will look different. Work (f) out from the beginning, showing exactly what the eigenvalues and corresponding eigenfunctions are.

17.7.2: This is just a quick review; in fact, it is already covered by 17.7.1(a,b,c).